

USSR/Technical Crops. Oil Plants. Sugar Plants.

M

Abs Jour: Rev Zhur-Biol., No 17, 1958, 77748.

Author : Kordub, N.V.

Inst : ~~AS-USSR~~ - Inst. Geology

Title : X-Ray Investigation of the Structure of the
Secondary Wall of Cotton Fiber Depending on Its
Age.

Orig Pub: UzSSR Fanlar Akad. dokladlari. Dokl. AN UzSSR,
1957, No 8, 9-12.

Abstract: The angles of incline of the spirally-coiled
molecular chains of cotton fibers decrease with
age. The degree of orientation of these chains
in the variety 108-F increases up to the point
when the bolls are 50 days old, and then remains
constant. The stability of the fibers to tearing

Card : 1/2

KORDUB, N.V.

Electron microscopic study of the structure of secondary layers in
cotton fibers. Dokl. Uzb. SSR no.3:13-17 '58. (MIRA 11:6)

1. Fiziko-tehnicheskiy institut AM UzSSR. Predstavлено академиком
AM UzSSR S.V. Starodubtsevym.
(Cotton) (Electron microscopy)

K. R. Dub, N. V.

1958] **ARMSTRONG, J. A., KLEPP, O. L., PASHKIN, S. Z., and SOKOLOV, N. I.** *The Investigation of the Method of Γ -rays for the Pickling and Conservation of the Caviar of the Sturgeon*. *Voprosy Akademicheskogo Nauk*, 1959, No. 2, pp. 12-17 (Russian).

FIELD: The paper is a continuation of *Part I* (1957). For a great number of living caviarfish the eastern Caspian (excluding the Γ -irradiation effect) or a Γ -irradiation on the quality of the caviarfish and the sex ratio obtained out of these, it is stated: 1. The caviarfish irradiated with Γ -rays (60 C.R.) were not easily damaged by Γ -irradiation subjected to heat only. 2. During the spoiling of the fish the length of the thread is slightly increased, toward season, the mean length of the thread is increased, during the conservation by the caviarfish. 4. A comparison of the humidity separated by the caviarfish of the male and female caviarfish of the male is only possible if the moisture

content can be distinguished. There is 1 figure, and 4 Soviet references.

March 2, 1959

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Card 2/2

ARIPOV, U.A.; KLEYN, G.A.; PASHINSKIY, S.Z.; LAPIDUS, L.A.; ANASTASOV, S.A.; ZAUROV, R.I.; KOHDUB, N.V.

Study on the gamma-ray method for killing the silkworm and preserving the cocoon. Izv.AN Uz.SSR.Ser.fiz.-mqt.nauk no.5: 12-18 '59. (MIRA 13:5)

1. Institut yadernoy fiziki AN UzSSR i Uzbekeskiy nauchno-issledovatel'skiy institut shelkovoy promyshlennosti. (Gamma rays--Industrial applications) (Sericulture)

AZIMOV, S.A.; KALAYDZIDU, Ye.I.; KORDUB, N.V.; SLEPAKOVA, S.I.; USMANOV,
Kh.U.

Determining the integral heat of wetting of natural silk irradiated with gamma rays. Dokl.AN Uz.SSR no.12:13-15 '59.

1. Fiziko-tehnicheskiy institut AN UzSSR. 2. Chlen-korrespondent
AN UzSSR (for Usmanov).

(Silk)

(Heat of wetting)

(Gamma rays)

88535

15.8600

S/190/60/002/010/003/026
B004/B054AUTHORS: Azimov, S. A., Usmanov, Kh. U., Kordub, N. V., and Slepakova, S. I.

TITLE: The Grafting of Some Monomers on Silk and Caprone by Means of Gamma Rays

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 10,
pp. 1459-1462

TEXT: The authors report on the grafting of acrylonitrile and styrene on silk and caprone under irradiation with gamma rays of Co^{60} with an activity of 1350 curies. A preliminary irradiation of fibers and a subsequent treatment with the monomers showed no result. When irradiating in monomeric solution, however, a weight increase (6 - 23%) of the fiber was observed which depended on the solvent applied (Table). With acrylonitrile and silk, an aqueous solution showed the best effect (23% weight increase), since it well moistens the silk. The grafting of acrylonitrile on caprone was carried out in aqueous-alcoholic solution, the grafting of styrene on caprone in ethanol (23 - 24% weight increase). The optimum irradiation dose was found to be $1 \cdot 10^6$ physical roentgen equivalents for the process. Card 1/2

X

The Grafting of Some Monomers on Silk and Caprone by Means of Gamma Rays

88535
S/190/60/002/010/003/026
B004/B054

A higher dose does not produce any further increase in weight of the fiber. The introduction of new chemical groups into the fibers was proved by means of an MK-12 (IK-12) infrared recording spectrometer (Figs. 1, 2). The grafted silk and caprone showed the characteristic 2270 cm^{-1} band of the $\text{C}\equiv\text{N}$ bond. On the basis of the change in viscosity of fibroin in copper-ammonia solution due to irradiation (Fig. 3) and the increase in moistening heat (Fig. 4), the authors assume a rupture of the principal chain of fibroin and a reduction in the packing of the macromolecules. The absorption bands corresponding to the hydrogen bonds of the CO-NH groups (3080 and 3300 cm^{-1}), however, remain unchanged even after intensive irradiation (Fig. 5). There are 5 figures, 1 table, and 3 references: 2 Soviet and 1 US.

ASSOCIATION: Fiziko-tehnicheskiy institut (Institute of Physics and Technology). Institut khimii polimerov AN UzSSR (Institute of the Chemistry of Polymers of the AS Uzbekskaya SSR)

SUBMITTED: January 8, 1960

Card 2/2

KORDUB, N.V.

Structure of the secondary cotton fiber wall. Tekst.prom. 20 no.7:
19-22 Jl '60. (MIRA 13:?)
(Cotton)

ARIfov, U. A., akademik; KLEYN, G. A.; FILIPPOV, A. N.; SLEPAKOVA, S. I.;
ZAurov, R. I.; KORDUB, N. V.

Gamma-radiation modification of the properties of natural silk in
different media and of the synthetic nitron in air. Izv. AN Uz.SSR.
Ser. fiz.--mat. nauk no.2:89-95 '60. (MIRA 13:10)

1. Institut yadernoy fiziki AN UzSSR i Uzbeckiy nauchno-issledo-
vatel'skiy institut shelkovoy promyshlennosti. 2. Akademiya nauk
UzSSR (for Arifov).

(Gamma rays) (Silk)
(Textile fibers, Synthetic)

S/844/62/000/000/083/129
D423/D307

AUTHORS: Azimov, S. A., Kordub, N. V., Slepakova, S. I. and Usmanov, Kh. U.

TITLE: The study of grafted copolymers of natural silk and caprone obtained by means of γ irradiation

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimi. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 490-496

TEXT: Acrylonitrile, styrene and methylmethacrylate were grafted to silk and caprone whilst subjected to γ irradiation from a 1350 curie Co^{60} source. Optimum radiation dosages were found to be 1×10^6 r for acrylonitrile and 5×10^6 r for styrene and methylmethacrylate, and the extent of grafting was found to depend on the concentration of monomer in the solvent. The nitrogen content of the grafted silk was somewhat reduced with increasing dosage. Analysis of the grafted copolymers was difficult because of their insolubility.

Card 1/2

L 52579-65 EWT(m)/EMF(1)/IMP(t)/IMP(b) JD

ACCESSION NR: AI 5012025

UR/0377/65/000/001/0022/0023

13

1/2

AUTHOR: Starodubtsev, S. V.; Umarov, G. Ya.; Kordub, N. V.

3

TITLE: Solar film vacuum concentrator 2.7 m in diameter

SOURCE: Geltotekhnika, no. 1, 1965, 22-23

TOPIC TAGS: solar energy converter, solar film concentrator, vacuum concentrator

ABSTRACT: The solar concentrator designed and constructed at the Fiziko-tehnicheskiy institut AN UzSSR (Physics and Engineering Institute, AN UzSSR) consists of a film mirror and a vacuum chamber in the shape of a frustum with fritted walls and base which insure a zenithal and azimuthal solar orientation. The tracking system provides for a rotation accurate to 0.5-1 degree. The instrument rests on a support of reinforced concrete which has withstood all the wind loads in 1963. The film, hermetically sealed at the open base of the conical vacuum chamber and acted upon by the difference of pressure forces, hugs the surface of the mirror and has sufficient reflecting power to concentrate the flux of radiant energy. By varying the vacuum in the tank, one can obtain mirrors which concentrate the radiant energy and have the desired focal distance. Orig. art. has: 1 figure.

Card

1/2

L 52575-65

ACCESSION NR: AP#012025

ASSOCIATION: Fiziko-tehnicheskiy institut AN UzSSR (Physics and Engineering Institute, AN UzSSR)

SUBMITTED: 10Nov64

ENCL: 00

SUB CODE: EE

NO REF SOV: 000

OTHER: 000

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Card 2/2

L 52578-65	ENT(m)	EWP(1)/EWP(t)/EWP(b)	JD	
ACCESSION NR: AP5012030		UR/0377/65/000/001/0066/0067		
AUTHOR: Umarov, G. Ya.; Kordub, N. V.; Klyuchevskiy, Yu. Ye.; Alimov, A. A.; Tret'yakova, Ye. I.		16 15 B		
TITLE: Hexagonal honeycomb film concentrator of solar rays				
SOURCE: Geltotekhnika, no. 1, 1965, 66-67				
TOPIC TAGS: film concentrator, solar energy converter, honeycomb film concentrator, faceted film reflector				
ABSTRACT: A faceted hexagonal film reflector was developed at the Fiziko-tekhnicheskiy institut, AN UzSSR (Physics and Engineering Institute, AN UzSSR). The concentrator was built in the shape of a paraboloid of revolution from individual hexagonal facets (66 pieces) and was 1 m in diameter. The facets consisted of metallized film mirrors with a reflection coefficient of 0.86. The technique employed in putting the facets together is described in detail. A concentrator of such design opens up new paths to the creation of high-energy devices for converting solar energy into other forms of energy. The cost of such film honeycomb concentrators of solar rays is many times lower than the cost of existing concentrators of analogous types; the technique of construction is simple and permits the creation of concentrators of large size and any				
Card 1/2				

L 52578-65

ACCESSION NR: AF 6012030

configuration. Orig. art. has: 1 figure.

ASSOCIATION: Fiziko-tehnicheskiy institut AN UzSSR (Physics and Engineering Institute, AN UzSSR)

SUBMITTED: 15Nov34

ENCL: 00

SUB CODE: EE

NO REF SOV: 065

OTHER: 000

2002/2

L 52576-65 EWP(m)/EWP(i)/EWP(t)/EWP(b) JD	
ACCESSION NR: A75012026	
UR/0377/65/000/001/0924/0027	
AUTHOR: <u>Umarov, G. Ya.</u> ; <u>Kordub, N. V.</u> ; <u>Bespal'ko, V. P.</u> ; <u>Gafurov, A.</u>	
TITLE: Experimental determination of the shape of the reflecting surface of an inflatable film concentrator	
SOURCE: <u>Geliotekhnika</u> , no. 1, 1965, 24-27	
TOPIC TAGS: film concentrator, solar energy converter, inflatable film concentrator, reflector shape, polyethylene terephthalate film	
ABSTRACT: The shape of the reflecting surface of a film concentrator was studied as a function of the difference in the pressures on both sides of the film. The reflecting surface was a metallized film of polyethylene terephthalate 13.5 μ thick and 50 cm in diameter. The principle of the determination of the shape consists of comparing the actual shape with the calculated ones, assuming that the reflecting surface assumes the shape of a spherical segment or that of a paraboloid of revolution. To determine the actual shape, shadow of the profile of the film formed by a beam of parallel light were projected on a plane and photographed in eight different positions corresponding to the application of eight different stretching forces exerted by air on the film. The	
Card 1/2	

L 52576-65

ACCESSION NR: A35012026

geometrical and mathematical treatment of the figures thus obtained is presented. At low values of the bending deflection of the film, the shape of the reflecting surface approaches that of a paraboloid of revolution; as the deflection increases and attains high values, the shape gradually approaches a spherical segment. Orig.art. has: 2 figures, 2 tables, and 7 formulas.

ASSOCIATION: Fiziko-tehnicheskiy institut AN UzSSR (Physics and Engineering Institute, AN UzSSR)

SUBMITTED: 01Nov84

ENCL: 00

SUB CODE: EE

NO REF SOV: 001

OTHER: 000

2/2.

L 52574-65 EWT(m)/EPF(e)/EWP(1)/EPR/EWP(j)/T/EWP(t)/EWP(b) PC-4/PR-4/PS-4
JD/MM/RM

ACCESSION NR: A15012027

UR/0377/85/000/001/0028/0030

35

AUTHOR: Starodubtsev, S.V.; Arifov, U.A.; Umarov, G. Ya.; Kordub, N.V.;
Akhmedov, S.

34

B

TITLE: Concentrator with an asbestos-cement base

16

SOURCE: Geltotekhnika, no. 1, 1965, 28-30

15

TOPIC TAGS: solar energy converter, film concentrator, concentrator base design, asbestos cement, polyethylene terephthalate film, binding resin, integral reflection coefficient

ABSTRACT: The authors used a mirror surface of metallized polyethylene terephthalate on an asbestos-cement base (15% asbestos, 85% cement). The concentrator was 92 cm in diameter, had a focal distance of 47 cm, and weighed 45 kg. The integral reflection coefficient was measured calorimetrically by placing a brass calorimeter at the focus of the mirror reflecting radiant energy. The energy balance of the concentrator was determined as the ratio of the flux striking a detector of radiant energy to the flux of radiant energy reflected from the mirror. It was found that the optical characteristics of the concentrator were equivalent to those of concentrators made of cast glass. The average value of the integral reflection coefficient was 0.78. This low value (compared

Card 1/2

L 52574-65

ACCESSION NR: AP 5012027

to 0.86 determined earlier) is explained by the scattering of radiant energy due to small deformations (craters) in the surface of the film caused by the presence of holes made to allow gases to escape during the polymerization of the resin binding the polyethylene terephthalate to the asbestos-cement base. The results show that the cost of preparation of the concentrator and its weight can be reduced (as compared to spherical mirrors), and that it can be built in large sizes and various configurations. Orig. art. has: 1 figure, 1 formula and 1 table.

ASSOCIATION: Fiziko-tehnicheskiy institut AN UzSSR (Physics and Engineering Institute, AN UzSSR)

SUBMITTED: 25Oct64

ENCL: 00

SUB CODE: EE, MT

NO REF SOV: 005

OTHER: 001

200
Card - 2/2

L 63202-65

EWT(u)/EAP(j) RN

ACCESSION NR: AR5005081

S/6196/64/000/012/0009/0010
621.472

SOURCE: Ref. zh. Elektrotehnika i energetika, Abs. 12055

AUTHOR: Kordub, N. V.

TITLE: Applicability of a metallized polymer film for concentration of solar
energy

CITED SOURCE: Dokl. Akad. Nauk SSSR, no. 3, 1964, 18-20

TOPIC TAGS: solar energy, helioenergy

TRANSLATION: The results are reported of an investigation of polymer films used
in the reflecting surfaces of solar-radiation concentrators. Three illustrations.
Bibliography: 5 titles.

SUB CODE: EE

ENCL: 00

Card

L 22260-66 EWT(a) IJP(s)

ACC NR: AR6005182

SOURCE CODE: UR/0058/65/000/009/B012/B012

SOURCE: Ref. zh. Fizika, Abs. 9B126

AUTHORS: Dorozhovs'kyy, Ye. S.; Korduba, B. M.; Kostenko, V. H.

TITLE: Dirichlet problem for planar electrostatics

REF SOURCE: Zadacha Dirikhle ploskoyi elektrostatyky. Visnyk Kyyivs'k. un-tu. Ser. matem. ta mekhan., no. 6, 1964, 152-158

TOPIC TAGS: electrostatics, Dirichlet problem, Poisson equation, computer application

TRANSLATION: The authors solve the external Dirichlet problem for planar electrostatics in an unbounded medium by reducing the latter to the internal problem in a rectangle for the Poisson equation. Using the symmetry of the problem, they solved with an electronic computer the resultant system of algebraic equations for the determination of the unknown parameters, and also obtain the potential field in any of the 128,293 internal junction points of a rectangular grid.

SUB CODE: 20

Card 1/1 ~~222~~

L 20383-66 EWT(d) IJP(c)
ACC NR: A16003593

SOURCE CODE: UR/3185/65/000/001/0009/0015

AUTHORS: Dorozhov's'kyy, Ye. S. (Dorozhovskiy, Ye. S.); Korduba, B. M.; Kostenko, V.H.

ORG: none

16
B+1

TITLE: The Dirichlet problem of planar electrostatics

SOURCE: Lvov. Universytet. Visnyk. Seriya mekhaniko-matematychna, no. 1, 1965, 9-15

TOPIC TAGS: Dirichlet problem, electrostatics, matrix function, algebraic equation, computer calculation, dipole antenna, slot antenna, antenna array

ABSTRACT: The authors solve the external Dirichlet problem for planar electrostatics in an unbounded region using the method of G. N. Polozhiy (Chislennoye resheniye dvumernykh i trekhmernykh krayevykh zadach matematicheskoy fiziki i funktsii diskretnogo argumenta [Numerical Solution of Two-Dimensional and Three-Dimensional Boundary Value Problems of Mathematical Physics and Functions of Discrete Arguments], Kiev University Publication, 1952). The problem, say, of the radiation from several pairs of dipole or slots situated between two long screens is reduced by means of such a method to the internal problem in a rectangle for the Poisson equation. The matrix equations and solutions are transformed into a resultant system of algebraic equations based on the symmetry of the problem, and solutions are obtained for a number of screen lengths in a form suitable for electronic computer evaluation. The results are subsequently used to obtain the potential field. Orig. art. has: 2 figures and 12

Card 1/2

L 20383-66

ACC NR: AT6003593

formulas.

SUB CODE:20, 12/SUBM DATE: 00/ ORIG REF: 001/

Card 2/2 vmb

DOROZHOVSKIY, Ye.S. [Dorozhovs'kyi, I.E.S.]; KORDUBA, B.M.; KOSTENKO, V.G.
[Kostenko, V.H.]

The Dirichlet problem in plane electrostatics. Visnyk L'viv. un.
Ser. mekh.-mat. no.1:9-15 '65.

Computation of the potential field and trajectories of a plane
electron-optical system. Ibid. 1:46-49

(MIRA 18:12)

(MIRA 18:12)

L 32981-66 ELT(1) LIP(c) AT
ACC NR: AR6016261

SOURCE CODE: UR/0058/65/000/011/H051/H052

AUTHOR: Dorozhov's'kyj, Ye. S.; Korduba, B. M.; Kostenko, V. H.79
BTITLE: Calculation of the field and trajectories of one plane electron-optical system

SOURCE: Ref. zh. Fiz. Abs. 11Zh358

REF SOURCE: Visnyk L'viv's'k. un-tu. Ser. mekhan.-matem., vyp. 1, 1965, 46-49

TOPIC TAGS: electron optics, electron motion, Dirichlet problem, Poisson equation, electric potential, electrostatic field, computer calculation, algorithm

ABSTRACT: The authors consider an electron-optical system consisting of three pairs of parallel electrodes. A potential $U = 1$ is applied to two pairs of electrodes of equal length, and $U = 0$ on the third. The calculation of the field of such a system reduces to the Dirichlet problem for the Poisson equation $\Delta U = q(x, y)$ in a rectangle, under the condition that $U = 1$ on the boundary of the rectangle, and $q(x, y) = 0$ everywhere inside the rectangle, with the exception of the electrodes, on which $U(x, y) = u(x, y)$ is specified. Computation formulas are given to determine the potential field and an algorithm is presented for the computer calculation of the coefficients of the system of algebraic equations. It is indicated that by using the Adams-Stoermer extrapolation formula, and by assuming the potential field that results from the calculation, it is possible to determine the flight trajectory of the electrons from the system of ordinary differential equations of the form

$$\frac{dy}{dt} = \frac{1}{2} \frac{\partial u(x, y)}{\partial y}, \quad \frac{dx}{dt} = \frac{1}{2} \frac{\partial u(x, y)}{\partial x}.$$

Card 1/2

L 32981-66

ACC NR: AR6016261

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000824610015-4

Numerical results obtained with the M-20 electronic computer are presented. I. Sheli-khova. [Translation of abstract]

SUB CODE: 20/

Card 2/2 BK

44 55
ACC NR: AP6000018 EMT(1)/EMT(1)/T/EP(1) IJP(c)

SOURCE CODE: UR/0208/65/005/006/1120/1124

AUTHORS: Martynovich, T. L. (L'vov); Korduba, B. M. (L'vov)

ORG: none

TITLE: Application of the straight line method coupled with the method of integral transformations to the problem of electrostatic fields with axial symmetry

SOURCE: Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki, v. 5, no. 6, 1965, 1120-1124

TOPIC TAGS: Dirichlet problem, electron lens, integral transform, approximation method, electrostatic field, Poisson equation, differential equation, Bessel function, Fourier series

ABSTRACT: An approximation method is outlined for the calculation of electrostatic fields for axially symmetric electron lenses. The physical problem is described by the Poisson equation

$$\frac{\partial^2 u}{\partial r^2} + \frac{1}{r} \frac{\partial u}{\partial r} + \frac{\partial^2 u}{\partial z^2} = -q(r, z)$$

in the domain $a_0 \leq z \leq a$, $0 \leq r < \infty$ which can be described as a Dirichlet boundary value problem with boundary conditions

$$u(r, z) \Big|_{z=a_0} = u(r, a_0), \quad u(r, z) \Big|_{z=a} = u(r, a), \quad \lim_{r \rightarrow \infty} u(r, z) = 0;$$

Card 1/3

UDC: 517.9:538.3

ACC NR: AP6000018

First, the straight line method is applied to the z -coordinate by dividing the length into the intervals $\{z_k, z_{k+1}\}$ such that the Poisson equation above is represented by

$$\frac{1}{r} \frac{d}{dr} r \frac{d}{dr} u^{(k)}(r) + \frac{1}{h^2} [u^{(k+1)}(r) - 2u^{(k)}(r) + u^{(k-1)}(r)] = -q^{(k)}(r),$$

$$k = 1, 2, \dots, n.$$

In vector notation this yields

$$\frac{1}{r} \frac{d}{dr} r \frac{du(r)}{dr} - \frac{1}{h^2} G_u u(r) = -q(r).$$

After further simplifications a set of n - independent differential equations is obtained of the zeroth order Bessel type in $U(r)$ given by

$$\frac{1}{r} \frac{d}{dr} r \frac{d}{dr} U^{(k)}(r) - \frac{\lambda_k}{h^2} U^{(k)}(r) = -Q^{(k)}(r), \quad k = 1, 2, \dots, n.$$

In the above, $Q^k(r)$ is a known function which can be expressed in Fourier series, and the solution for $U_0^{(k)}(r)$ can be given by

$$U_0^{(k)}(r) = A_k J_0(\mu_k r) + B_k K_0(\mu_k r), \quad k = 1, 2, \dots, n.$$

Neglecting the electrode thickness and assuming the system grounded leads to the following expression for $u^{(k)}(r) = u(r, z_k) =$

$$= \frac{3}{n+1} \sum_{k=1}^n \sum_{l=1}^n \sum_{m=1}^n \left\{ \begin{array}{ll} K_0(r^{(k)} \mu_l) J_0(\eta_m), & 0 < r < r^{(k)} \\ J_0(r^{(k)} \mu_l) K_0(\eta_m), & r > r^{(k)} \end{array} \right\} \sin \frac{lx}{n+1} \sin \frac{mx}{n+1}$$

Card 2/3

111275-66

ACC NR: AP6000018

The problem is then applied to the case of an electro-optical system with three cylindrical electrodes, symmetric relative to the plane $z = 0$. The solution leads to a set of algebraic equations of the 22nd order for determining the unknown charge density $q_3(x)$. Orig. art. has: 19 equations and 2 figures.

SUB CODE: 20,12

SUBM DATE: 29Jun64/

SOV REF: 002/

OTH REF: 002

PC
Card 3/3

L 01849-67 EWT(d)/EWT(1) IJP(c)
ACC NR: AR6013771

SOURCE CODE: UR/0044/65/000/010/B087/B087

AUTHOR: Dorozhov's'kyy, Ye. S; Korduba, B.M.; Kostenko, V. N.

16
TITLE: Dirichlet problem of the flat electrostatics

SOURCE: Ref. zh. Matematika, Abs. 10B410

REF SOURCE: Visnyk L'vivs'k. un-tu. Ser. mekhan-matem., vyp. 1, 1965, 9-14

TOPIC TAGS: electron optics, electrostatic field, computer/EVM Ural-1 computer

ABSTRACT: Assume that three pairs of parallel electrodes of the same length are symmetrically disposed between two parallel lines (screens) of arbitrary length. On the screens and on the adjacent electrodes the given potential is $u=1$, on the other electrodes $u=0$. The problem of potential field determination mathematically reduces to the solution of the Laplace equation $\frac{\partial^2 u}{\partial x^2} + \frac{\partial^2 u}{\partial y^2} = 0$ (1) In the unlimited region, problem (1) is solved by the method of G.M. Polozhiy by reduction to an internal problem of Dirichlet in a rectangle, for the Poisson equation. Methodology for the solution of (1) on the Ural-1 computer is described. A comparatively simple formula of summary representations for field calculations is given; an algorithm for the solution of the emerging system of algebraic equations is constructed. Numeric results of the solution are described. I Shelikhova Translation of abstract

SUB CODE: 90/12

Card 1/1

92
B
21
UDC 518.517.944/.947

L 08939-67 EXP(1) IJP(c) AT
ACC NR: A10013768

SOURCE CODR: 01/00-14/65/000/010/B085/B1086

AUTHOR: Dorozhov's'kyj, Yo. S.; Korduba, B. M.; Kostenko, V. II.

ORG: None

47

TITLE: Computation of the field and trajectories of a flat electron optical system

SOURCE: Ref. zh. Matematika, Abs. 10B405

REF SOURCE: Visnyk L'vivs'k. un-tu. Ser. mekhan.-matem., vyp. 1, 1965, 46-49

TOPIC TAGS: electron optics, flat electron optics, electron motion, computer/EVM
M-20 computer

ABSTRACT: An electron optical system consisting of three pairs of parallel electrodes is considered. On two pairs of equal length, the potential $U=1$ is given, on the third pair $\Delta U=0$. Field computation reduces to the Dirichlet problem for the Poisson equation $U = q(x,y)$ (1) in a rectangle, under the condition $U = 1$ (2) (L is the boundary of the rectangle). Now $q(x,y) = 0$ everywhere inside the rectangle, except on the electrodes, where $U(x,y) = u(x,y)$ (3). For the solution of the problem (1), (2), (3), - the method of G.M. Polozhiy is used. Computational formulas for the calculation of the potential field, and an algorithm for a computerized calculation of the coefficients of the relevant system of algebraic equations are given. It is noted that the use of the extrapolation formula of Adams-Sturmer and of the compu-

Card 1/2

UDC 518:517.944/.947

ACC NR: AR6013768

ted potential field enables the determination of electron trajectories from differential equations of the type

$$\frac{d^2y}{dt^2} = \frac{1}{2} \frac{\partial u(x, y)}{\partial y}$$

$$\frac{d^2x}{dt^2} = \frac{1}{2} \frac{\partial u(x, y)}{\partial x}$$

Numeric results of solutions for the problem (1), (2), (3) on the M-20 computer are given. [Translation].

SUB CODE: 09, 12/

Scanned 2/3 not

KEDRA, M.; KORDUBA, M.

Cadmium test in evaluation of the extent of liver parenchyma injury.
Przegl. lek., Krakow 8 no. 5:122-127 1952. (CLML 22:5)

1. Of the Third Internal Clinic (Head--Prof. B. Szczeklik, M. D.)
of Wroclaw Medical Academy.

KORDUBA, P.T.

KORDUBA, P.T.--"Problems of the Ecology of the Western May Beetle (*Melolontha melolontha*) in L'vov Oblast."*(Dissertations For Degrees In Science And Engineering At USSR, Higher Educational Institutions). (24) Min Higher Education USSR, L'vov State U imeni Iv. Franko, L'vov, 1955

SO: Knizhnaya Litopis', No.34, 20 August 1955

* For the Degree of Candidate in Biological Sciences

USSR / General and Specialized Zoology. Insects.

P

Abs Jour: Ref Zhur-Biol., No 2, 1958, 6820.

Author : Korduba, P. T.

Inst : Lvov Forestry Institute.

Title : Some Problems of the Ecology of the Western May Beetle. *Melolontha melolontha* L.

Orig Pub: Nauch. tr. L'vovsk. lesotekhn. in-t, 1955, 2, 53-58.

Abstract: The females of the May beetle deposit their eggs mostly near feeding trees (willow, birch, oak and fruit trees) at a depth of 25-30 cm. When the soil was treated at this depth since the 20th day from the beginning of the emergence, part of the eggs would be mechanically destroyed, another part would get to the surface and would perish because of lack of moisture. The female deposited

Card 1/2

KORDUBA, P.T.

Some biological and ecological characteristics of the western May beetle (*Melolontha melolontha* L.) in the Carpathians. *Nauk. zap.*
UzhGU 40:255-262 '59. (MIRA 14:4)

1. L'vovskiy lesotekhnicheskiy institut.
(Transcarpathia—Cockchafers)

KORDUBA, P.T.

Ecology of the pine flat bug Aradus cinnamomeus P. in western
Polesye, Ukrainian S.S.R. Vop. ekol. 7:86 '62. (MIRA 16:5)

1. Lesotekhnicheskiy institut, L'vov.
(Polesye--Flat bugs)
(Polesye--Pine--Diseases and pests)

KORDUBA, Roman

Cases of bigeminal pulse. Przegl. lek., krakow 10 no.6:178-180
1954.

1. Z II Kliniki Chorob Wewnętrznych Akademii Medycznej w Gdańsku.
Kierownik: prof. dr Stanisław Waselaki. Z Pracowni Elektrokardiografiowej Polskich Zakładów Państwowych w Gdańsku.
(PULSE,
bigeminal)

BORISOVA, T. P., kand. med. nauk; KORDUBAN, T. A.

Clinical evaluation of the mucoproteins in the blood in rheumatism
in children. Pediatriia 41 no.3:15-22 '62. (MIRA 15:2)

1. Iz kliniki starshego detskogo vozrasta (zav. - deyствител'nyy
chlen AMN SSSR prof. O. D. Sokolova-Pomareva) i biokhimicheskoy
laboratorii (zav. - doktor biologicheskikh nauk A. A. Titayev)
Instituta pediatrii AMN SSSR (dir. - dotsent M. Ya. Studenikin)

(RHEUMATIC FEVER) (MUCOIDS)

KORDULAJINSKI, A.

Motor traction on local railroads.

P. 350. (PRZEGLAD KOLEJOWY MECHANICZNY) (Warszawa, Poland) Vol. 9, no. 11,
Nov. 1957

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, 1958

KORDULASINSKI, Andrzej, mgr inż.

Mechanical service of commuter lines in 1960 and 1961.
Przegl kolej mechan 13 no.5:153-154 My '61.

MILCZUK, Irena: KORDULSKA, Franciszka

The treatment of ulcerous disease with mucoprotein preparations
(robudene - robopharm). Ann.Univ.Lublin; sec.D 14:213-218 '59.

1. Z Katedry III Kliniki Chorob Wewnętrznych Wydziału Lekarskiego
Akademii Medycznej w Lublinie. Kierownik: prof. dr med. Michał Voit.
(PEPTIC ULCER ther)
(MUCOPROTEINS ther)

KORDULSKA, Franciszka

Subacute lymphatic leukemia with normal erythrocyte sedimentation.
Polski Tygod. lek. 16 no.44:1702-1703 30 0 '61.

1. z III Kliniki Chorob Wewnętrznych A.M. w Lublinie; kierownik:
prof. dr med. M. Voit.
(LEUKEMIA LYMPHOCYTIC blood) (BLOOD SEDIMENTATION)

KORDULSKA, Franciszka

Behaviour of bleeding and coagulation time in neoplastic diseases. Ann. Univ., Lublin sect.D 16:374-380 '61.

1. Z Katedry i III Kliniki Chorob Wewnętrznych Wydziału Lekarskiego Akademii Medycznej w Lublinie Kierownik: prof. dr med. Michał Voit.
(BLOOD COAGULATION) (NEOPLASMS)

KORDUMANOV, I.V., inzh.

Experience with the DTS-24M two-arc automatic unit in welding
spherical tanks. Mont. i spets. rab. v stroi. 25 no.5:15-17
My '63. (MIRA 16:7)

1. Trest. No.7 Glavneftemontazha.
(Tanks—Welding)

KORDUN, G.G.

KORDUN, G.G.: "On the history of development of thermodynamics in Russia in the second half of the 19th century." Kiev, 1955. Kiev State Pedagogical Inst imeni A.M. Gor'kiy. (Dissertations for the Degree of Candidate of Physicomathematical Sciences).

SO: Knizhnaya letopis' No 45, 5 November 1955. Moscow.

Kordun, G. G.

USSR/Atomic and Molecular Physics -Statistical Physics. Thermo-
dynamics D-3

Abs Jour : Ref Zhur - Fizika, No 4, 1957, 8965

Author : Kordun, G.G.

Title : Concerning the Work by M.F. Okatov on the Proof of the
Second Law of Thermodynamics.

Orig Pub : Nauk. zap. Kliiv's'k derzh. ped. in-t, 1956, 19, 149-154

Abstract : Brief outline of the life and scientific activity of
M.F. Okatov in connection with his 125th birthday.

Card : 1/1

KONOVALOV, V.N.; KORDUN, G.G.

M.F. Okatov's thermodynamic research. Trudy Inst. ist. est. i tekhn.
22:160-172 '59.
(Okatov, Mikhail Fedorovich, 1829-1901)
(Thermodynamics)

KONOVALOV, V.M. ; KORDUN, G.G. [Kordun, H.H.]

History of the development of thermodynamics. Nar. z ist. tekhn.
no.7:27-43 '61. (MIRA 15:2)
(Thermodynamics)

USSR

ACCESSION NR: AP4000656

S/0286/63/000/017/0029/0029

AUTHOR: Kordun, N. N.

TITLE: Electronic signal converter. Class 21, No. 156984

SOURCE: Byul. izobret. i tovarn. znakov, no. 17, 1963, 29

TOPIC TAGS: electronic signal converter, nonelectric parameter regulation, evenly spaced signals, constant duration signal, double triode preamplifier, signal phase separation, phase sensitive discriminator, polarized relay

ABSTRACT: Electronic converter for signals obtained from a regulator, during the regulation of non-electrical parameters in signals with constant interval and duration proportional to the deviation of the parameter being regulated from a given magnitude, differing in that with the aim of increasing the sensitivity of the regulating and stabilizing operations, there is used at the converter input a double triode preamplifier separating the signals according to phase and amplitude and a phase sensitive discriminator, to the output of which is connected a polarized relay.

ASSOCIATION: none
SUBMITTED: 20Dec61

DATE ACQ: 05Dec63

ENCL: 01

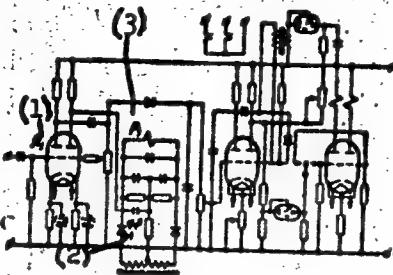
SUB CODE: SD
Card 1/2

NO REF Sov: 000

OTHER: 000

ACCESSION NR A P4000656

Enclosure 01



Enclosure

1. Double triode preamplifier;
2. phase sensitive discriminator
3. Polarized relay

Card 2/2

KORDUNDIZ, A.

Katz, L. J., and Efremov, G. I. ~~KORUNDIZ, A.~~ NEW HIGH-GRADE CERAMIC MATERIAL. Zavodskaya Lab., 5(10) 1274-75 (1936).--The material is obtained by using alumina as the fundamental raw material transformed into corundum crystals. The ware is prepared by casting and firing to complete sintering in electrical and oil furnaces at about 1700°. The sintering is made possible by adding 1 to 2% of alkaline earth salts or other mineralizers facilitating the formation of crystals at lower temperatures. The material is used for preparing high-refractory crucibles, electric furnace tubes, and thermocouple tubes. It has a high resistance to alkalis.

KORDUNSKIY, M., kapitan

Months and kilometers. Tekh. i vooruzh. no. 1:51 Ja '64.
(MIRA 17:6)

STOYCHEV, Lyuben Iv. [Stoichev, Liuben IV], dots., arkhitektor, doktor
landshaftnogo iskusstva; KOLEV, K.M., inzh. [translator];
KORDUNYAN, N.N. [translator]; BOGOYAVLENSKIY, Kirill, red.

[Parks and landscaping] Parkovoe i landshaftnoe iskusstvo.
Sofia, Zemizdat, 1962. 385 p. Translated from the Bulgarian.

(MIRA 16:2)

(Parks) (Landscape architecture)

44358

16, 34⁰S/044/62/000/012/010/049
A060/A000AUTHOR: Kordunyanu, K.

TITLE: Supplements to the article "Application of differential inequalities to the theory of stability"

PERIODICAL: Referativnyy zhurnal, Matematika, no. 12, 1962, 43, abstract 12B198
(An. științ. Univ. Iași, 1961, sec. 1, v. 7, no. 2, 247 - 252; summaries in French, Rumanian)

TEXT: Extending his investigations (RZhMat, 1961, ① 10B145) the author provides elementary proofs for a number of theorems on operator equations

$$\frac{dx}{dt} = f(x, t), \quad (1)$$

which generalize the known results for the finite-dimensional case. As example he gives the instability criteria with the aid of a generalized Lyapunov function, stability criteria of various types for a system of the form $\frac{dx}{dt} = A(t, x) x$ as a function of the spectrum of the operator $H(t, x) = \frac{1}{2} [A(t, x) + A^*(t, x)]$.

Card 1/3 ① Not selected

Supplements to the article "Application of

S/044/62/000/012/010/049
A060/A000

We cite theorem II: Let E be a Hilbert space of the vectors x, t ; $(x, f(t, x)) \leq \|x\| g(\|x\|) \varphi(\cdot)$, where $g(r)$ is a positive continuous function on the interval $(0, \infty)$ such that $\int_{t_0}^{\infty} \frac{dr}{g(r)} = +\infty$, and $\varphi(t)$ is continuous on the half-axis $t > 0$. Then a) if $\int_0^{t_0} \varphi(\tau) d\tau < M$, $t > 0$, then the homogeneous solution of the system (1) is stable, b) if $\int_{t_0}^t \varphi(\tau) d\tau \leq M$, $t \geq t_0 > 0$, then the homogeneous solution of the system (1) is uniformly stable; c) if the $\lim_{t \rightarrow \infty} \int_0^t \varphi(\tau) d\tau = -\infty$, then the zero solution of system (1) is asymptotically stable; d) if $\lim_{t \rightarrow \infty} \int_{t_0}^{t_0+t} \varphi(\tau) d\tau = -\infty$, uniformly along $t_0 > 0$, then the homogeneous solu-

Card 2/3

Supplements to the article "Application of

S/044/62/000/012/010/049
A060/A000

tion of the system (1) is uniformly asymptotically stable.

V.V. Nemytskiy

[Abstracter's note: Complete translation]

Card 3/3

KORDUNYANU, P.

USSR/Cultivated Plants - Fodder.

M.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15725

Author : P. Kordunyanu

Inst : Kishinev Agricultural Institute.

Title : Several Agricultural Methods of Cultivating the
Jerusalem Artichoke.
(Nekotoryye agropriyemy vozdalyvaniya zemlyanoy grushy).Orig Pub : Zemledeliye i zhivotnovodstvo Moldavii, 1957, No 4, 37-
39.Abstract : At the Experimental Station for Field Cultivation of the
Kishinev Agricultural Institute it was established that
the highest Jerusalem artichoke output of both tubers
and greens was gotten with wide-row planting on a bed
of 70 x 35 cm. Increased yields were also observed with
an increased mean tuber weight.

Card 1/2

126

FOURMARIER, Paul, prof.; KORDUS, A., mgr. inz.

Runs of voltages and currents at the moment of disconnection from, and repeated switch on asynchronous motors to the network. Elektryka Poznan no. 2:165-191 '61.

1. University in Liege, Belgium (for Fourmarier).
2. Politechnical College, Poznan (for Kordus).

KORDUS, Aleksander, mgr inz.

Application of 380/660 V interconnected voltage in industrial enterprises. Energetyka przem 10 no.8:271-273 Ag '62.

1. Katedra Elektroenergetyki, Politechnika, Poznan.

KORDUS, Aleksander, mgr inż.

Concepts and prospects of magnetohydrodynamic generators.
Wiad elektrotechn 31 no.7:159-161 J1 '63.

1. Katedra Elektroenergetyki, Politechnika, Poznań.

JASICKI, Zbigniew; KORDUS, Aleksander

Certain problems of a magnetohydrodynamic generator with a
constant cross-section channel. Rozpr elektrotech 10 no.1/2:
227-236 '64

1. Department of Electrical Power Engineering, Technical University,
Poznan.

L 2191]-66 EWT(1)/EWP(m)/EPF(n)-2/ENG(m)/T-2 IJP(c) AT
ACC NR: AP6014475 SOURCE CODE: P0/0046/65/010/09-/0605/0611

AUTHOR: Kordus, Aleksander

ORG: Department of Electrical Power Engineering, Technical University of Poznan,
Poznan

TITLE: Conductivity measurements concerning low-temperature plasmas used in magneto-
gasdynamic generators

SOURCE: Nukleonika, v. 10, no. 9-10, 1965, 605-611

TOPIC TAGS: plasma conductivity, generator

ABSTRACT: Measurement methods are described and results obtained are compared with calculations. A plasma conductivity measurement system in the channel of a magneto-gasdynamic generator is proposed. Orig. art. has: 5 figures and 6 formulas. Orig. art. in Eng. / NA

SUB CODE: 20 / SUBM DATE: 090ct64 / ORIG REF: 001 / OTH REF: 009

Card 1/1 MJS

KORDYAKOVA, S. A.

USSR

The increase in dust-catching properties of water with the aid of wetting agents. P. A. Rehder, N. N. Serebrilina, and S. A. Kordyakova. *Barber + Strickland, Mine, Metal, Chemical, Ceramic, 1953*, 27-68. — The increase in deaggregating properties of water to which small doses of wetting agents are added depends upon the ability of such agents to reduce the surface tension of H_2O and upon the extent of their adsorption on the surface of hard particles thrown into the air during mining. In flowing H_2O through the bore in mine drilling the presence of wetting agents in the H_2O also facilitates the process of drilling. The synthesized wetting agents tested were: DB, a mixt. of anionic polyethylene glycol, di-n-butylphenyl ethers, and OP, a mixt. of similar anionics having a sharp putrid odor. The task of wetting mine-dust particles is made more difficult by the fact that during the process of drilling air bubbles mix with the dust particles, preventing the water or wetting agent soln. droplets from getting into immediate contact with the surface of the dust particles. An app. and method are described for the lab. study of the factors involved in deaggregating and of the effectiveness of wetting agents added to H_2O . A series of tests were performed with wetting agents Sulfant, DB, and OP-7. The results are tabulated and briefly discussed.

B. S. Levne

Inst. Phys.-Chem., AS USSR

KARLOWICZ, Karola; KORDYASZ, Ewa; WOLFF-PILODOWSKA, Anna

Analysis of pathological cases of neonatal jaundice. Pediat.
Pol. 40 no.6:571-578 Je '65.

1. Z Oddzialu Niemowlecego Miejskiego Szpitala Bielanskiego w
Warszawie (Ordynator: dr. med. K. Karlowicz).

KORDYASZ, J.

Industrial safety in teletechnological work carried out near power plants. p. 234.
(WIADOMOSCI TELEKOMUNIKACYJNE, Warszawa, Vol. 24.(i.e.23), No. 12, Dec. 1954)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 6, June 1955, Uncl.

KORDYEV, Yu. I.

7243. KORDYEV, Yu. I i FEDOROV, M. V. Arkhitektura i osobennosti
zritel'nogo vospriyatiya. M., Gos. izd int. po stroitel'stvu i arkhitekture.
1954. 136 s. s ill.; 31. ill. 23 sm. 6.000 ekz. 9 r. 60 k. V per. -
bibuogr. v kontse knigi (18 nazb.) - 55-2598/p 72,01+016.37

Knizhnaya Letopis' No. 6, 1955

KORDŁĘMSKI, J.

Appulses of Pluto to stars. In English. p. 203.
(ACTA ASTROPHONICA. Vol. 6, no. 4, 1956. Warszawa, Poland)

SO: Monthly List of East European Accessions (EVAL) IC. Vol. 6, no. 12, Dec. 1957.
Uncl.

KORDYLEWSKI, J.

SCIENCE

periodicals: POSTEPY ASTRONOMII Vol. 6, no. 3, July/Sept. 1958

KORDYLEWSKI, J. The orbit of Harrington's comet, 1952 (II). p. 101.

Monthly List of East European Accessions (EEAI) LC Vol. 8, no. 5
May 1959, Unclass.

KORDYLEWSKI, J.

Ephemeris of Pluto's appulses to stars. In English. p. 185

ACTA ASTRONOMICA. (Polska Akademia Nauk. Komitet Astronomii)
Warszawa. Vol. 8, no. 3, 1958
Poland/

Monthly List of East European Accessions Index (EEAI), LC, Vol. 8, No. 6, June 1959
Uncl.

"APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000824610015-4

KORBEL, Zofia (Krakow); KORDYLEWSKI, Jerzy (Krakow)

Photographic observations of Comet Mrkos 1957 d. Acta astronom
9 no.1:50 '59.

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000824610015-4"

GOLAB, S. (Krakow); NORDYLEWSKI, J. (Krakow); KUCZMA, M. (Krakow)

On some new geometrical interpretations of the torsion of a skew
curve. Annales pol math 7 no.3:269-278 '60. (EKA 9:10)
(Curves) (Geometry)

KORDYLEWSKI, J.; MUCZMA, M. (Krakow)

On the functional equation $F(x, y, f_1(x), \dots, f_n(x)) = 0$.
Annales pol. math. 8 no.1: 55-60 '60. (EEAI 10:2)
(Functional equations)

24254

P/026/60/008/004/003/009
A189/A126

3,910

AUTHORS: Fajkiewicz, Zbigniew; Kordylewski, Jerzy, and Kudelski, Gerard

TITLE: The use and adaption of ARITMA punch-card calculating machines
in interpreting measurements in gravity and magnetism

PERIODICAL: Acta Geophysica Polonica, v. 8, no. 4, 1960, 324 - 336

TEXT: The ARITMA punch-card digital computer of Czechoslovak origin, which is also available in Poland, is described. This computer can be used for the interpretation of gravimetric and magnetic measurement charts and scales. In addition the computer is able to compute values for anomalies of higher gravity derivatives. The efficiency of the computer is presented by comparison of two gravity charts, one obtained by ARITMA (Fig. 4) and one obtained by Bouguer (Fig. 1). ARITMA gives a much better idea of distribution of local disturbing anomalies than Bouguer. For the interpretation of data three sets of punch-cards are to be fed into the computer. The machine then tabulates automatically. Computation time for values of the second vertical derivative of gravity is considerably shortened, in comparison with conventional methods, costs are reduced, and many in-between-

Card 1/3

21254

P/026/60/008/004/003/009

A189/A126

The use and adaption of ARITMA punch-card...

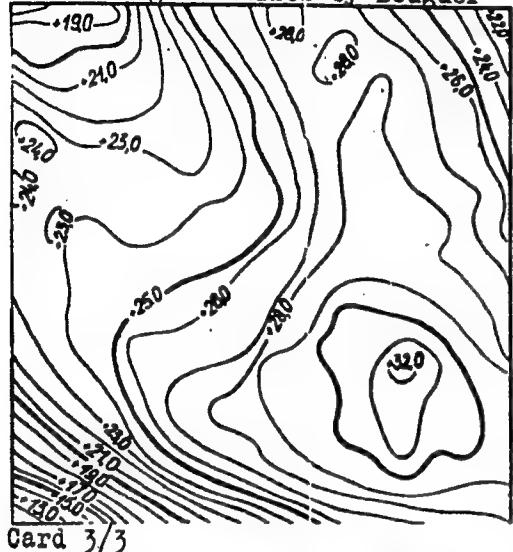
values in the entire interpretation scale can be produced simultaneously. There are 4 tables and 6 non-Soviet-bloc references. The reference to the most recent English-language publication reads as follows: M. H. P. Bott: The Use of Electronic Digital Computers for the Evaluation of Gravimetric Terrain Corrections. Geophysical Prospecting v. 7, no. 1, 1959.

ASSOCIATION: Academia Górniszo-Hutnicza - Kraków

Card 2/3

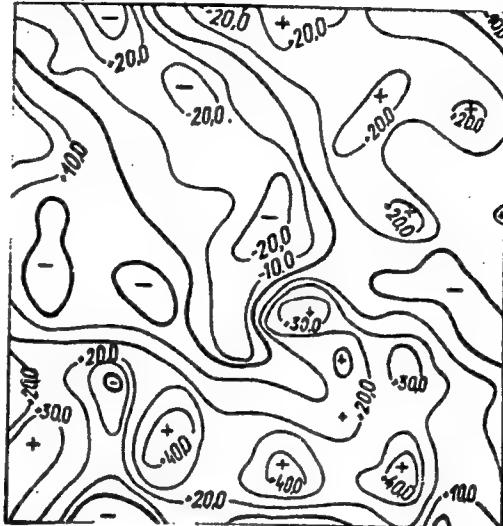
The use and adaption of ARITMA punch-card...

Fig. 1. Distribution of local disturbing anomalies by Bouguer



24254
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A189/A126

Fig. 4. Distribution of local disturbing anomalies by ARITMA machine



KORDYLEWSKI, J.; KUCZMA, M. (Krakow)

On some linear functional equations. Annales pol math 9 no.2:119-136
'60. (EEAI 10:5)

(Functional equations)

KORDYLEWSKI, J. (Krakow)

On the functional equation $F(x, \varphi(x), \varphi[f(x)], \varphi[f^2(x)], \dots, \varphi[f^n(x)]) = 0$.
In English. Annales pol. math. 9 no. 3:285-293 '61. (EJAI 10:8)
(Functional equations)

KORDYLEWSKI, J.; KUCZMA, M. (Krakow)

On the continuous dependence of solutions of some functional equations
on given functions. I. Annales pol. math. 10 no.1:41-48 '61. (EEAI 10:5)
(Functions)

KORDYLEWSKI, J. (Krakow)

Continuous solutions of the functional equation $\phi[f(x)] = F(x, \phi(x))$
with the function $f(x)$ decreasing. Annales pol. math. 11 no.2:
115-122 '61.

KORDYLEWSKI, J. (Krakow); KUCZNA, M. (Krakow)

On some linear functional equations. II. Equation of the second order.
Annales Polonici mathem 11 no.3:203-207 '62.

KORDYLEWSKI, J. (Krakow)

Continuous solutions of the functional equation $Q(f(x)) = F(x, \eta(x))$
with the function $f(x)$ decreasing. Annales Pol. math. 11 no.2:115-122 '61.

JASICKI, Z. (Poznan); KORDYLEWSKI, J. (Krakow); KUDELSKI, G. (Warszawa)

Application of the automatic Park computer to computing the degree
of power factor correction on a power system basis. Zasieg mat 6
no. 4:407-418 '63.

KORDYLEWSKI, K.

Satellite Echo I. Wszechswiat no.5:121-122 My'61

KORDYLEWSKI, K.

Photographic research on the libration point L_5 in the Earth -
Moon system. Acta astronomica 11 no.3:165-169 '61.

1. Astronomical observatory, University, Krakow.

KORDYLEWSKI, K.

Occultations of stars by the moon observed at the Astronomical Observatory of the Krakow University 1952-1960. Acta astronom 13 no.2:123-134 "63.

1. Observatory, Krakow.

KORDYLEWSKI, Z.

Studies on the connections between the changes of regular periods
of variable stars and their coordinates. Fostepy astronom 12 no.
2:126-127 '64.

KORDYLEWSKI, Z.

Periods of two eclipsing binaries SVS 645 Del and GL Her. Acta
astronom 14 no.3:223-220 '64.

1. Astronomical Observatory, University, Wrocław.

KORDYS, Jan

Radiologic picture of funnel chest. Polski przegl. radiol. 18 no.4:
223-249 1954.

1. Z Zakladu Radiologii Lekarskiej Akademii Medycznej w Warszawie.
Kierownik: prof. dr med. W. Zawadowski.

(THORAX, abnormalitites,
funnel chest, x-ray)

(ABNORMALITIES,
funnel chest, x-ray)

KORDYS, Jan

Radiological diagnosis of clinical conditions of the biliary tract using biligraffin. Polski przegl. radiol. 20 no.3:139-165 May-June 56.

1. Z Zakladu Radiologii Lekarskiej A M w Warszawie. Kier.: prof. dr. nauk med. W. Kawadowski. W-wa ul. Sloneczna 50 m. 31.

(CONTRAST MEDIA,

sodium iodipamide in biliary x-ray (Pol))

(BILIGRAFFIN, radiography,

with sodium iodipamide (Pol))

KORDYS, Jan

Radiological functional heart examination in record breaking sport competitors. Polski przegl. radiol. 21 no.1:11-40 Jan-Feb 57.

1. Z Pracowni Rentgenowskiej Glownej Poradni Sportowo-Lekarskiej w Warszawie, Kierownik: dr. med. J. Kordys. Dyrektor: dr. med. W. Sidorowicz.

(HEART, physiol.

funct. x-ray exam. in athletes (Pol))

(ATHLETICS

heart funct. x-ray exam. in athletes (Pol))

KORDYS, Jan

Radiological observations on functional disorders of the biliary tract.
Polski przegl. radiol. 22 no.2:85-96 Mar 58

1. Z Zakladu Radiologii Lekarskiej A.M. w Warszawie Kierownik:
prof. dr nauk med. W. Zawadowski.
(BILIARY TRACT, dis.
funct. disord., x-ray manifest. (Pol))

KORDYS, Jan; PAWLISZEWSKA, Alina

Polski przegl. radiol. 25 no.2:173-186 '61.

1. Z Zakladu Radiologii Lekarskiej AM w Warszawie Kierownik: prof. dr nauk med. W. Zawadowski Z Zakladu Anatomii Patologicznej AM w Warszawie Kierownik: prof. zw. dr nauk med. L. Paszkiewicz.

(PEPTIC ULCER compl) (BILE DUCTS abnorm)
(BILIARY FISTULA radiog) (INTESTINAL FISTULA radiog)

BOROWICZ, Jerzy; KORDYS, Jan

A case of isolated pulmonary amyloidosis. Pol. przegl. radiol. 26 no.4:
297-302 '62.

1. Z Zakladu Anatomii Patologicznej Szpitala PKP w Warszawie-Miedzylesiu
Kierownik Zakladu: dr med. J. Borowicz z Zakladu Radiologii Szpitala
PKP w Warszawie-Miedzylesiu Kierownik Zakladu: dr med. J. Kordys
Dyrektor Szpitala: dr med. K. Kaminiski.
(AMYLOIDOSIS) (LUNG DISEASES)

KORDYS, Jan

Evaluation of complications observed following arteriographic examination of dog kidneys in experimental unilateral hydronephrosis. Pol. przegl. radiol. 26 no.5:397-432 '62.

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(ANGIOGRAPHY) (HYDRONEPHROSIS) (RENAL ARTERY)

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Oddziału Laryngologicznego: dr med. W. Antyporowicz Kierownik
Zakładu Anatomii Patologicznej: dr med. J. Borowicz Kierownik
Zakładu Radiologii: dr med. J. Kordys.

(CARCINOMA, BASAL CELL)
(SALIVARY GLAND NEOPLASMS)
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J. Kordys.

(HYDRONEPHROSIS) (RENAL ARTERY)
(ANGIOGRAPHY) (URETER)

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*

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5.1110,5.2400

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SOV/80-33-2-6/52

AUTHORS: Atroshchenko, V. I., Konvisar, V. I., Kordysh, Ye. I.

TITLE: Concerning the Efficiency of Nitrogen Oxide Absorption in Bubble Plate Columns

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 2, pp 289-295 (USSR)

ABSTRACT: The rate of formation of diluted nitric acid is governed chiefly by the reactions of NO oxidation and the absorption of NO_2 thus formed. In designing bubble-cap and sieve plate absorption columns, the oxidation of NO and the composition of the nitrogen oxides is determined for each successive plate. The rate of NO_2 absorption and the amount of nitric acid formed is then calculated from the equation of equilibrium and the experimental value of the plate efficiency. The present study deals with the determination of the plate efficiency which is a function of several variables:

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Concerning the Efficiency of Nitrogen Oxide
Absorption in Bubble Plate Columns

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$$C = f(c_{\text{HNO}_3}, P, t, w, h), \quad (1)$$

where c_{HNO_3} is the acid concentration (in % based on weight); t is the temperature of the acid (in $^{\circ}\text{C}$); P is the pressure (in atm); h is the distance between the plates (in m); w is the gas velocity (in m/sec). The study was made in a column consisting of cylindrical sections of various lengths from which columns with various distances between the plates were assembled. Plots of the plate efficiencies C against the acid concentration at various pressures and plates distances, in conjunction with data on C values at various gas velocities and acid concentrations (supplied by the Lisichansk Branch of the State Institute of Nitrogen Industry and the Central Laboratory of LKhK) allowed for establishing the empirical equations (5) and (10):

$$K = 0.0071 + 2 \cdot 10^{-4} \cdot P - 0.015 \cdot w. \quad (5)$$

Card 2/4